UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,122	08/30/2006	Yuji Nagao	Q81160	7752

23373 7590 08/06/2008

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
MC GINTY, DOUGLAS J	

ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
08/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,122	NAGAO ET AL.	
	Examiner	Art Unit	
	DOUGLAS MC GINTY	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11-2-2006 & 8-30-2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 7,390,593.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that patent involve vapor grown fibers with an aspect ratio of 2-500 nm. Claim 12 in that patent further includes a resin.

Claims 1-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7,150,840.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that patent involve carbon fibers. Claim 9 in that

patent involves vapor grown carbon fibers. Claim 12 in that patent has an aspect ratio of 10-15,000. Claim 19 in that patent includes a resin.

Claims 1-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of U.S. Patent No. 7,122,132.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that patent involve vapor grown carbon fibers. Claim 2 in that patent has an aspect ratio of 10-2,000. Claim 11 in that patent includes a resin.

Claims 1-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,844,061.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that patent involve carbon fibers with an aspect ratio of 10-15,000. Claim 10 in that patent includes a resin.

Claims 1-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,974,627.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that patent involve carbon fibers with an aspect ratio of 10-15,000.

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 11/662,645.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that other application involve conductive resin composition with carbon fibers. The aspect ratio is 50-1000. Claim 2 in that other application has a specific surface area of 3-50 m^2/g.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/592,121.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that other application involve a conductive resin composition with vapor-grown carbon fibers. The aspect ratio is 40-1000. Claim 7 in that other application has a specific surface area of 4-30 m^2/g.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/570,140.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that other application involve a conductive resin composition with vapor-grown carbon fibers. Claim 4 in that other application has an aspect ratio is 40-1000 and a specific surface area of 4-30 m^2/g.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 11/661,130.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that other application involve a conductive resin composition with vapor-grown carbon fibers. Claim 2 in that other application has an aspect ratio is 10-1000. Claim 12 in that other application has a twin-screw extruder.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-23 of copending Application No. 10/540,560.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of that other application involve a composition with vapor-grown carbon fibers having an aspect ratio of 10-15,000. Claim 15 in that other application has a resin.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC §§ 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-6, 9-16, 23-26, 31, and 32 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morita (WO 03/027368).

Morita teaches conductive filler for a conductive resin containing vapor grown carbon fiber having an aspect ratio of 10-15,000 and a fiber diameter of 1-500 nm diameter (Abstract). The reference exemplifies filler in the amount of 15 wt% (17:35-18:12).[1] Various materials such a sliding member can be produced (18:14-26).

The reference does not appear to specifically teach the specific surface areas, peak intensity ratios, breakage rates, bulk densities, anisotropic ratios, heat deflection temperature, thermal conductivity, flexural modulus, etc., presently claimed. Nevertheless, the reference teaches carbon fibers made by the vapor growth process. Compositions with the same materials would have the same inherent properties, so that the burden fairly shifts to the applicant to show otherwise. MPEP 2112.01.

Accordingly, Morita is found to anticipate the claimed invention. The claims also are found to have been obvious to one of ordinary skill in the art over the teachings of Morita because the reference teaches vapor grown carbon fibers as conductive filler in resin compositions.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morita (WO 03/027368).

Morita has been discussed above. The reference does not appear to specifically teach the use of an electron microscope.

[1] The designation "17:35" refers to p. 17, line 35.

As discussed above, however, Morita teaches fiber diameters of 1-500 nm. It is noted that optical microscopes cannot resolve much below 500 nm. Consequently, the only way to see the smaller fibers is through an electron microscope. It would have been obvious to one of ordinary skill in the art to use an electron microscope to view the carbon fibers as the only means to do so. One of ordinary skill is not an automaton; he or she is capable of using common sense. *KSR Intern. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742 (2007).

Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita as applied to claims 1-7, 9-16, 23-26, 31, and 32 above, and further in view of Patel (US 6,528,572).[2]

Morita does not appear to specifically teach melt-mixing by means of a twin-screw extruder or pressure kneader.

Patel teaches mixing the carbon fibers and resin by various means, including an extruder or any other apparatus suitable for yielding a substantially uniform mixture (7:16-34).[3] Example 1 has a twin-screw extruder (8:55).

It would have been obvious to use the various mixing means taught by Patel to make the conductive resin taught by Morita because both references teach making conductive resins with carbon fibers. One skilled in the art only had to look to the closely related teachings of Patel to carry out the mixing required by Morita. "The combination of familiar [components] according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR*, 127 S. Ct. at 1739.

---

[2] This rejection is made over the combined teachings of Morita and Patel.

Obviousness only requires a reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 904 (Fed. Cir. 1988).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS MC GINTY whose telephone number is (571)272-1029. The examiner can normally be reached on M-F, 830-500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOUGLAS MC GINTY/
Primary Examiner, Art Unit 1796

---

[3] The designation "7:16-34" refers to col. 7, lines 16-34.